

**A METHOD OF DYNAMICALLY PRE-FASTENING A DISPOSABLE
ABSORBENT ARTICLE HAVING A SLOT-AND-TAB FASTENING SYSTEM**

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CROSS REFERENCE TO RELATED APPLICATIONS

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This application is a continuation of the copending parent application U.S.S.N. 10,036,633 filed
10 on December 21, 2001; *PAT. 6,669,618.*

FIELD OF THE INVENTION

The present invention relates to a high-speed-manufacturing method of pre-fastening a disposable
absorbent article having a slot-and-tab fastening system.

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BACKGROUND

Disposable absorbent articles such as diapers, pull-on diapers, training pants, adults incontinence
pads and the like, can include a fastening system for joining the front of the article to the rear of the article.
The fastening system can comprise a tab member and a slot member disclosed in US Patent Application
20 09/143,184 filed on 8/28/98, which is incorporated by reference herein. The disclosed fastening system is a
refastenable fastening system that enables the wearer or the caretaker to refasten the article during the wear
to provide a more comfortable fit. The engagement of the tab and slot members can be done by the wearer
or caretaker when securing the article around the wearer, or, alternatively, during manufacturing of the
article to effect a pre-fasten article that is ready to be pulled on the wearer. Such manufacturing requires
25 folding a normally flat-out article into a folded configuration and inserting the tab member into a slot of the
slot member to form the pre-fastened article. However, the manufacturing of disposable absorbent article is
normally a high-speed production wherein individual articles often move along a production path at a speed
of hundreds feet per minute, and inserting the tab member into the corresponding slot of the slot member at
such high production speeds represents a problem.

30 Therefore, it would be beneficial to provide a high-speed-manufacturing method of pre-fastening a
disposable absorbent article having a slot-and-tab fastening system to produce a pre-fastened absorbent
article having engaged tab and slot members.

SUMMARY OF THE INVENTION

35 In response to the difficulties and problems discussed above, a new high-speed method of pre-
fastening disposable absorbent articles during manufacturing of pre-fastened disposable absorbent articles
having a slot-and-tab fastening system has been discovered.

The present invention concerns a method of dynamically pre-fastening disposable absorbent
articles having a slot-and-tab fastening system as the articles are driven forward at a relatively high velocity
40 along a predetermined path. The method includes the step of providing a disposable absorbent article being